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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,624	04/16/2004	Stephen K. Pinto	17146-006001	1303
26161 7590 02/04/2008 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER HIRL, JOSEPH P	
			ART UNIT 2129	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,624

Applicant(s)

PINTO ET AL.

Examiner

Joseph P. Hirl

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered November 20, 2007 for the patent application 10/826624 filed on April 16, 2004.
2. The First Office Action of June 21, 2007 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1-17 are pending in this application.

Information Disclosure Statement

4. In reference to applicant's Supplemental Information Disclosure Statement, the subject declarations identified in the instant IDS were not provided and hence the subject IDS will not be considered but will be place in the applicant's file.
5. In reference to page 1, third paragraph of the Supplemental Information Disclosure Statement, it is not the policy for an Examiner of a given application to review the efforts of another application notwithstanding the invitation of the Applicant to do so. If "other material" should be the subject of a review in the instant application, then the Applicant should make such material available to the Examiner for review.

Claim Objection

6. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Derived, constructed and transformed variables are one and the same ... derived variables are defined as constructed and transformed variables and therefore do not further limit the referenced independent claim limit (specification, page 1:27-28).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Cabena et al. (IBM, Intelligent Miner for Data Applications Guide, referred to as **Cabena**).

Examiner's Opinion: the prior art of Cabena when associated with ¶ 15. below applies.

Considering that the rejection of the claims is made under § 102, MPEP 2131.05

applies. The prior art of Cabena is quite extensive and with the considerations of ¶ 15. below and MPEP 2131.05, the Examiner encourages the applicant to thoroughly review the response to this office action.

Claim 1

Cabena anticipates providing a graphical user interface that enables a user of a model generation tool (**Cabena**, Pages 21, 22, Fig. 8; Examiner's Note (EN): ¶ 15. applies; screen shot of a GUI is shown in Fig. 8) to view and manage subgroups of contributory and non-contributory variables associated with generation of a predictive model (**Cabena**, Page 90:2-3; Page 118, ¶ 7.3.3.2; Fig. 8; EN: applicant has not defined the terms contributory or non contributory variables; specification at page 33:9-10, states "the analyst progresses by choosing the prediction method (and the criteria to exclude non-contributory variables) ..." which is anticipated by Cabena at page 118, ¶7.3.3.2 with the statement "we selected the variables indicated by the decision tree to be important predictors of defection"; making a selection means that variables were viewed and managed for inclusion - exclusion) including source variables associated with attributes of the original data and derived variables subsequently modified from the source variables (**Cabena**, Page 91:2-3; EN: Cabena's objective (source) variable is based on historical data and the response (derived, constructed, transformed) variable is the result of the model's prediction).

Claim 2

Cabena anticipates which the derived variables include constructed variables, and transformed variables (**Cabena**, Page 91:2-3; EN: Cabena's objective (source) variable is based on historical data and the response (derived, constructed, transformed) variable is the result of the model's prediction; EN: see ¶ 6. above).

Claim 3

Cabena anticipates enabling the user to move variables between subgroups using a pointer (**Cabena**, Pages 21, 22, Fig. 8; Page 95:5-17; EN: pointers are inherent to GUI and would associated with subset (subgroup) selection involving features; click type operations are described by Cabena at page 22:19-35).

Claim 4

Cabena anticipates the user interface enables a user to view, with respect to a selected variable, its definition and its response distribution relative to an outcome variable (**Cabena**, Pages 21, 22, Fig. 8; EN: see page 22:28-32).

Claim 5

Cabena anticipates only variables within one of the subgroups are used in the model that is generated (**Cabena**, Page 95:5-17; EN: such would be the selection of one feature).

Claim 6

Cabena anticipates the subgroup to which each variable belongs is stored persistently (**Cabena**, Page 21, Fig. 8; EN: stored persistently merely means stored for some period of time which is the typical storing operation).

Claim 7

Cabena anticipates in connection with a project in which a user generates a predictive model based on historical data about a system being modeled, enabling the user through a graphical user interface to manage and view information about distributions and interactions on strengths of measurement of predictor variables associated with the data (**Cabena**, Page 21, Fig. 8; Page 23, Fig. 9; page 33, ¶ 4.1; Fig.

59; EN: Cabena on page 121 addresses strength of measurement related to training results which is directly related to "interactions based on strengths of measurement of predictor variables associated with the data").

Claim 8

Cabena anticipates a status of a predictor variable (**Cabena**, Page 108:19).

Claim 9

Cabena anticipates the information includes a status of a class of non-predictor variables (**Cabena**, Page 108:19; EN: the term non-predictor has no assign meaning and is therefore considered a non-limiting term).

Claim 10

Cabena anticipates the user interface enables the user to point and click to cause display of information about the variable (**Cabena**, Pages 21, 22, Fig. 8; EN: see page 22:28-32).

Claim 11

Cabena anticipates the information about the variable comprises at least one of: a description, a definition, a history of transformations, a response graph, and a link to the graph (**Cabena**, Pages 21, 22, Fig. 8; EN: see page 22:28-32; such is a highlighted term or variable).

Claim 12

Cabena anticipates invocation of the link to the graph causes display of the probability of an event as a function of the variable (**Cabena**, Pages 47:21-22; EN: a

cluster is a graph; probability of occurrence of a variable is the probability of an event as a function of the variable where a variable is the event as a function of the variable).

Claim 13

Cabena anticipates including enabling the user to cause a variable to be transformed, and including the transformed version of the variable in the information about predictor variables (**Cabena**, Pages 21:1-3; Fig. 8; EN: the transformed version of the variable in the information about predictor variables is nothing more than the end result).

Claim 14

Cabena anticipates the predictor variables are grouped in the user interface, and also including enabling the user to move one or more than one variable from one group to another (**Cabena**, Pages 21, 22, Fig. 8; EN: see page 22:28-32; EN: such as the API functions that control the execution of mining runs and results; sequencing functions will move one or more variables from one group to another).

Claim 15

Cabena anticipates filtered views of a data dictionary of an entire set of variables of the model (**Cabena**, Page 24, ¶ 2.5.4; En: data dictionary is a set of records which are related to the model variables which are filtered by Cabena).

Claim 16

Cabena anticipates the user interface enables the user to point and click to cause display of decision partition trees of the collection of predictor variables (**Cabena**,

Pages 21, 22, Fig. 8; page 10:8; EN: see page 22:28-32).

Claim 17

Cabena anticipates the user interface enables the user to point and click to cause display of response distribution functions of the collection of predictor values (Cabena, Pages 21, 22, Fig. 8; page 50:18-19; EN: see page 22:28-32).

Response to Arguments

9. The response to the request for "Required Information" is acknowledged.
10. Claim 2 objection stands for the reasons cited in ¶ 6. above.
11. Applicant's arguments filed on November 20, 2007 related to Claims 1-17 have been fully considered but are not persuasive.

In reference to Applicant's argument:

Claim 1 has been amended to recite that a graphical user interface is provided to a user of a model generation tool to view and manage subgroups of "contributory and non-contributory variables." For example, in some implementations described in the application, a predictor variables palette (FIG. 19) enables a user to examine "predictor variables that survived the filtering for non-contributory variables ... together with the non-contributory variables." (page 28, lines 1-6) As shown in the screen-shot of FIG 19, the contributory and non-contributory variables are displayed under columns headed "Excluded Constructed Variables, Predictor Variables and Excluded Primary Variables." Nothing in Cabena describes or would have made obvious that a graphical user interface is provided to a user of a model generation tool to view and manage subgroups of "contributory and non-contributory variables."

Examiner's response:

¶ 8. including the comments related to Claim 1, above, apply.

In reference to Applicant's argument:

In amended claim 7, a graphical user interface is provided to a user of a model generation tool to manage and view "distributions and interactions based on strengths of measurement of predictor variables." For example, the predictor variables palette enables a user to examine "potential interactions" and data distributions, e.g., "nonlinearities," in the data. (Page 27, lines 26-30) Nothing in Cabena describes or would have made obvious that a graphical user interface is provided to a user of a model generation tool to manage and view "distributions and interactions based on strengths of measurement of predictor variables."

Examiner's response:

¶ 8. including the comments related to Claim 7, above, apply.

Examination Considerations

12. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

13. Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact

prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

14. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

15. Examiner's Opinion: ¶¶ 12. – 14. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Claims 1-17 are rejected.

Correspondence Information

18. Any inquiry concerning this information or related to the subject disclosure should be directed to the Primary Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 5:30 a.m. to 4:00 p.m.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the applicant. Without a written authorization by applicant recorded in the applicant's file, the USPTO will not respond via e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is an example authorization which may be used by the applicant:

Notwithstanding the lack of security with Internet Communications, I hereby authorize the USPTO to communicate with me concerning any subject matter related to the instant application by e-mail. I understand that a copy of such communications related to formal submissions will be made of record in the applications file.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David R. Vincent can be reached at (571) 272-3080.

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Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,
Washington, D. C. 20231;


Hand delivered to:

Receptionist,
Customer Service Window,
Randolph Building,
401 Dulany Street,
Alexandria, Virginia 22313,
(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 273-8300 (for formal communications intended for entry.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



Joseph P. Hirl
Primary Examiner
January 31, 2008